



IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Rev. 05/14/01

Applicants: Thomas C. Terwilliger

Docket No.: S-91,732

Serial No.: 09/512,962

Examiner: Hartter

Filed : February 25, 2000

Art Unit: 1631

For : LIKELIHOOD-BASED MODIFICATION OF EXPERIMENTAL CRYSTAL
STRUCTURE ELECTRON DENSITY MAPS

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Commissioner for Patents
Washington, DC 20231

ELECTION UNDER RESTRICTION REQUIREMENT

Sir:

In an action dated May 23, 2001, the Patent Office has required restriction to one of the following inventions:

- I. Claims 1-5, drawn to modeling methods, classified in class 395, subclass 500.23.
- II. Claims 6-9, drawn to selection methods, classified in class 395, subclass 500.05.

CERTIFICATE OF MAILING/TRANSMISSION (37 CFR 1.8(a))

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Ray G. Wilson

(type or print name of person certifying)

Date

June 19, 2001

The Examiner remarks that Groups I and II are distinct in that Group I is concerned with the calculation of the formation of an electron density map of a crystalline structure, while Group II is directed to a method that attempts to match an observed data set to a prior set of known structure factors.

Applicant respectfully traverses the restriction requirement imposed by the Patent Office. The method that is claimed in Claims 1-5 is simply a species of the invention that is claimed in Claims 6-9. In both cases, experimental crystallographic information (Claim 1 steps d.-g.; Claim 6 step a.) is compared (Claim 1 step h.; Claim 6, step a.) with a model or observed set of crystallographic information (Claim 1 steps a.-c.; Claim 6, step a.) using probability (likelihood) functions and adjusting the experimental crystallographic information to maximize the probability (likelihood) of the experimental information (Claim 1 step i.; Claim 6, step b.). The inventions are not distinct and separate inventions and the restriction requirement should be removed.

For purposes of this reply, Applicant elects Claims 6-9, Group II, for prosecution at this time.

Respectfully submitted,

Date:

June 19, 2001

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